Absolute Raid Management and Raid Companion Protocols

Protocol v1 (rev 4) · Absolute Raid Management 0.2.2 · Absolute Raid Companion 0.2.4 · Absolute Gaming LLC

The in-game protocol the two addons use to talk to each other over hidden addon messages. Two parts:

Part	Side	What it covers
Part 1: Raid Companion protocol (v1, rev 3)	Raider	Every message Absolute Raid Companion sends and accepts: transport, the hidden guild channel, DKP, reserves, bidding, presence checks
Part 2: Raid Management conformance	Raid leader	How Absolute Raid Management 0.2.0 sends and answers each of those messages, checked item by item
Rev 4: optional DKP and Raid Bot	Both	ARM 0.2.2 can switch the DKP system and Absolute Raid Bot off. A `flags` field on `HI`, a new `MODE` message and a `via` field on `DKP` tell Raid Companion 0.2.4 (Part 1, Optional DKP and Raid Bot)

This is for addon authors and the curious. Raiders and raid leaders don't need it to use the addons.

Part 1: Absolute Raid Companion <-> Absolute Raid Management protocol (v1, rev 3)

Rev 3 (Raid Companion 0.2.1) matches **Absolute Raid Management 0.2.0** and its ARM-RC-Protocol-Conformance document: presence checks are `PING`/`HERE`, and every item on that document's RC checklist is confirmed (see the end of this file). A **self-test** section covers running both addons on one character.

Give this file to whoever builds the bidding manager in **Absolute Raid Management (ARM)**. Absolute Raid Companion 0.2.1 speaks exactly this, so ARM has to match it.

Raid Companion (RC) is the raider's addon. ARM is the raid leader's addon and the source of truth: it owns the DKP books, the auctions, the reserves and the loot lists. RC only shows what ARM tells it and sends the raider's choices back.

Transport

Item	Value
Addon message prefix	`ABSRAID` (register it with `C_ChatInfo.RegisterAddonMessagePrefix`)
Field separator	`~` (fields never contain `~`; RC turns any `~` into `-` before sending)
Max length	one addon message, **<= 250 bytes**. No multi-piece messages anywhere (the Olympus capture showed pieces getting lost), so every message stands alone.
Raid-wide news	group addon channel: `RAID` (or `PARTY` / `INSTANCE_CHAT`)
Anything secret or personal	addon `WHISPER` to the one player. Whispered addon messages never show in chat and no other player's client sees them. **Bid amounts only ever travel this way.**
Guild DKP lookups	the hidden guild channel (below), with `GUILD` as the backup
Names	always `Name-Realm` (WoW Forever runs on connected realms)

Who RC believes

RC ignores leader-side messages (`HI` with role L, `DROP`, `AUC`, `EXT`, `CLOSE`, `RSVSET`, `RSVREQ`, `LL`, `RQHI`, `PING`) unless the sender is the **raid leader, a raid assistant or the master looter**. So ARM must run on one of those. `BIDOK`, `JOINOK`, `RSVOK`, `WON` and `DKP` count only when they arrive as a `WHISPER`.

Hidden guild channel

This is like Absolute Olympus's census channel: a custom chat channel that RC joins silently and keeps out of every chat window. RC derives the name and password from the guild, so ARM lands in the same channel without any setup. **Use this exact code in ARM:**

```
local function Djb2(s)
    local h = 5381
    for i = 1, #s do h = (h * 33 + string.byte(s, i)) % 4294967296 end
    return h
end
local function Base36(n)
    local digits, out = "0123456789abcdefghijklmnopqrstuvwxyz", ""
    n = math.floor(n)
    if n == 0 then return "0" end
    while n > 0 do
        local r = n % 36
        out = digits:sub(r + 1, r + 1) .. out
        n = math.floor(n / 36)
    end
    return out
end
-- returns channelName, password (nil if not in a guild yet)
local function GuildChannelName()
    if not IsInGuild() then return nil end
    local guild, _, _, guildRealm = GetGuildInfo("player")
    if not guild or guild == "" then return nil end
    local realm = guildRealm
    if not realm or realm == "" then
        realm = GetNormalizedRealmName and GetNormalizedRealmName()
        if not realm or realm == "" then realm = (GetRealmName() or ""):gsub("[%s%-]", "") end
    end
    if not realm or realm == "" then return nil end
    local key = string.lower(guild .. "-" .. realm)
    return "AbsRaid" .. Base36(Djb2(key)), "arc" .. Base36(Djb2(key .. "#absraid"))
end
```

- Join with `JoinTemporaryChannel(name, password)` **about 15 seconds after** `PLAYER_ENTERING_WORLD`, so it never takes /1 or /2 from General or Trade. Then call `ChatFrame_RemoveChannel(ChatFrameN, name)` for every chat frame, and add `ChatFrame_AddMessageEventFilter` filters on the `CHAT_MSG_CHANNEL*` events to drop anything for that channel.
- To send, use `C_ChatInfo.SendAddonMessage("ABSRAID", msg, "CHANNEL", GetChannelName(name))`.
- **Listen on both** `CHANNEL` **and** `GUILD`. RC falls back to `GUILD` when it isn't in the channel or the raider turned the channel off.

Messages

`L` = ARM (leader), `C` = Raid Companion. Fields in `<>`. Empty fields are allowed (`a~~b`).

Handshake

Dir	Message	When / meaning
C -> group	`HI~1~C~<rcVersion>`	RC sends this when it joins a group, 1-3 s after.
L -> group **or** whisper	`HI~1~L~<armVersion>~<pool>~<maxReserves>~<locked>~<raidKey>`	**ARM must answer every** `HI~1~C`: whisper this back to the sender, or send it to the group (simpler, and it also refreshes everyone). Also send it to the group when the pool, raid, reserve limit or lock changes. `pool` is the DKP book name for this raid (e.g. `Main Raid`). `maxReserves` is 0 for no limit. `locked` is `1` or `0`. `raidKey` is described below.
L -> group	`RQHI~1`	"Who runs Raid Companion?" Each RC whispers back `HI~1~C~<ver>` after a random 0-3 s delay.

If RC gets no `HI~...~L` within 6 s it switches to **chat mode** (see the end of this file).

On the first `HI` from a leader, RC whispers `DKPQ~<pool>`. If it has no loot list for `raidKey`, it also whispers `LLREQ~<raidKey>`.

DKP

Dir	Message	Meaning
C -> L whisper	`DKPQ~<pool>`	"What's my balance?" `pool` may be empty: then answer with the raid's pool.
C -> guild channel / GUILD	`DKPQ~<pool>`	The same question asked guild-wide (outside a raid). Answer only if this ARM keeps the guild's master points book. Many officers answering is harmless, because RC keeps the newest timestamp.
L -> C whisper	`DKP~<pool>~<balance>~<timestamp>`	The balance after every award and charge, **not** minus open bids (RC subtracts its own open bids locally). `timestamp` = `time()` of the book's last change. RC drops a snapshot older than the one it holds. **ARM should whisper `DKP` to every affected online player after each award, charge, decay or undo**, so raiders see changes live.

Loot and bidding

`lootId` is any short token ARM picks that is unique for the raid night (e.g. a counter in base36). `itemId` is the numeric item ID.

Dir	Message	Meaning
L -> group	`DROP~<lootId>~<itemId>~<boss>`	A drop was announced (loot window opened, or the leader shift-clicked it in). RC lists it and adds it to the raid's learned loot.
L -> group	`AUC~<lootId>~<itemId>~<minBid>~<seconds>~<mode>`	Bidding opens. `mode` `O` = anyone may bid, `R` = only players who reserved it. RC pops the bid window (always for the raider's reserves, and for every item if they keep the default). Sending `AUC` without a `DROP` first is fine.
C -> L whisper	`JOIN~<lootId>`	"Put me on the bidding table" (the raider didn't reserve it).
L -> C whisper	`JOINOK~<lootId>~<A|R>~<reason>`	Accepted or refused, with a short reason.
C -> L whisper	`BID~<lootId>~<amount>`	A **secret** bid. Each new `BID` replaces that raider's earlier bid on the item. ARM must check it (open, >= min, <= balance minus their other open bids, reserve-only rule) and **never** post the amount to chat.
L -> C whisper	`BIDOK~<lootId>~<amount>~<A|R>~<reason>`	Echo the amount you're answering. RC ignores answers to an older amount.
C -> L whisper	`PASS~<lootId>`	Take my bid back.
L -> group	`EXT~<lootId>~<seconds>`	The timer now ends `seconds` from now (a late bid added time).
L -> group	`CLOSE~<lootId>~<winner>~<result>`	`result` `W` = won (`winner` = Name-Realm), `D` = disenchanted, `C` = cancelled (`winner` empty). **No price**: prices stay secret.
L -> winner whisper	`WON~<lootId>~<price>`	Only the winner learns the price. Follow it with a `DKP` whisper showing the new balance.

If RC doesn't get `CLOSE` within 45 s after the timer ends, it marks the item closed on its own.

Reserves

`raidKey` is the raid's **English** name with everything except letters and digits removed: `Onyxia's Lair` -> `OnyxiasLair`, `Barrow Deeps` -> `BarrowDeeps`, `Hyjal Summit` -> `HyjalSummit`, `Molten Core` -> `MoltenCore`, `Zul'Gurub` -> `ZulGurub`, `Ruins of Ahn'Qiraj` -> `RuinsofAhnQiraj`. Lua: `name:gsub("[^%w]", "")`. For raids RC doesn't know, it uses the key ARM sends, as-is.

Dir	Message	Meaning
C -> L whisper	`RSV~<raidKey>~<id,id,...>`	The raider's **whole** reserve list for that raid (it replaces the old one; empty = cleared). At most 30 IDs.
L -> C whisper	`RSVOK~<raidKey>~<A|R>~<acceptedIds>~<reason>`	`acceptedIds` = comma list of the IDs you kept. RC marks the rest refused and shows the reason, e.g. `only 3 reserves allowed`.
L -> group	`RSVSET~<raidKey>~<maxReserves>~<locked>`	The limit or lock changed.
L -> group	`RSVREQ~<raidKey>`	"Send me your reserves." RCs with reserves for that raid resend `RSV` after a random 0-4 s delay.
C -> L whisper	`LLREQ~<raidKey>`	"Send me this raid's loot list."
L -> C whisper (or group)	`LL~<raidKey>~<page>~<pages>~<boss>~<id,id,...>`	One page **per boss**, each a complete message (<= 250 bytes; split a big boss into more pages under the same boss name, and RC merges by boss name). Pace them at about 4 a second.

Presence checks (rev 3: as built in Absolute Raid Management 0.2.0)

Each time ARM pays DKP for being there (a boss kill, the on-time bonus, Give to raid, or a presence tick every N minutes), it asks every Raid Companion whether they're present. RC only **reports facts**; ARM decides who earns the DKP.

Dir	Message	Meaning
L -> group	`PING~<checkId>~<reason>`	"Are you here?" `reason` is a label, e.g. `Boss kill: Onyxia` or `Presence (15 min)`. RC accepts it only from the raid leader, an assistant or the master looter, and only in a group (or in self-test).
C -> L whisper	`HERE~<checkId>~<inInstance>~<afk>`	Whispered to the PING's sender after a random 0-2 s delay (ARM waits 8 s). `inInstance` = `IsInInstance()`, `afk` = `UnitIsAFK("player")`. RC answers even when away (`afk=1`), and never answers the same `checkId` twice. RC logs each answer in the raider's DKP history ("Presence check: Boss kill: Onyxia - here").

Rev 2 drafted `PRES`, `HB`, `STBY` and `TICK`. ARM 0.2.0 built `PING`/`HERE` instead, so RC 0.2.1 dropped the rev 2 messages and follows ARM.

Optional DKP and Raid Bot (rev 4: Raid Companion 0.2.4, built in Absolute Raid Management 0.2.2)

Raid Management's DKP & BOT tab lets the leader switch the DKP system and Absolute Raid Bot off and just run the raid. Raid Companion follows the leader. All three changes are optional: rev 3 builds keep working, and **no `flags` field at all means DKP on.**

`flags` on the leader's `HI` (field 9)

`HI~1~L~<armVersion>~<pool>~<maxReserves>~<locked>~<raidKey>~<flags>`

Letter	Meaning	ARM 0.2.2 sends it when
`D`	DKP is in use for this raid: bids, planned bids, `DKP` whispers	The DKP system is on
`B`	Absolute Raid Bot feeds the points	The bot switch is on (it needs DKP)
`U`	The leader uploaded everyone's DKP before the raid	The current pool came from **Upload DKP** in the last 12 hours
`0`	None of these: raid management only	DKP is off. `pool` is sent empty

Letters combine (`DB`, `DU`, `DBU`, `D`). Unknown letters are ignored.

`MODE~<flags>` (L -> group)

ARM sends it to the group the moment the leader turns DKP or the bot on or off, and the group also gets a fresh `HI~1~L` within 2 seconds. While DKP is off, ARM also whispers `MODE~0` back to any `DKPQ` that still arrives.

`via` on DKP (field 5)

`DKP~<pool>~<balance>~<timestamp>~<via>`: `B` from a Raid Bot snapshot, `U` uploaded before the raid, `L` ARM's own book. After an upload, `timestamp` is the upload time until the first change after it.

What ARM does with DKP off

- Never sends `DKP`, `AUC` or `EXT`; ignores `DKPQ` asked on the guild channel or GUILD.
- Answers `BID` with `BIDOK~<lootId>~<amount>~R~no bidding tonight (DKP is off)`.
- Takes `JOIN` as **Want**: answers `JOINOK~<lootId>~A~noted: loot goes by roll tonight` and shows the raider in the LOOT page's Want column, so the leader can roll the item among them.
- Still sends `DROP`, `CLOSE~<lootId>~<winner>~W` (no `WON`), reserves (`RSVOK`, `RSVSET`, `RSVREQ`, `LL`) and presence `PING`.
- Writes nothing to any points book, and won't switch DKP off while an auction or roll is running.

Chat mode (ARM builds without this protocol)

If no leader answers `HI`, RC falls back to what ARM 0.1.6 already does:

- Bids go out as a plain chat whisper `bid <N>` to the master looter (or the raid leader if there is none). RC hides the raider's own `bid N` whisper from their chat window.
- Drops come from raid warnings and raid chat from the leader or an assistant: every item link is listed, and if the line contains the word "bid" it's treated as bidding open, with no timer.
- No reserves, no join, no accepted or refused answers.

Once ARM speaks this protocol, chat mode switches off by itself.

Notes for ARM

- Retail (Midnight) can refuse addon messages in some instance and combat situations. RC retries refused sends up to 5 more times over about 20 s. ARM should check `SendAddonMessage`'s result and retry too. Bidding happens after a kill, so this is rarely a problem.
- Keep demo mode honest: RC's `/arc demo` plays a pretend leader with exactly these messages, so it's a working reference for the order and timing.

RC checklist from ARM-RC-Protocol-Conformance: confirmed in RC 0.2.1

- [x] Leader-side messages from a **raid assistant** (or the master looter) are accepted.
- [x] `CLOSE~id~~C` means closed with no winner (cancelled or no bids). RC shows "No winner".
- [x] `CLOSE~...~W` is accepted for a drop that never had an `AUC` (rolled or awarded).
- [x] `JOIN` before `AUC` is sent from the LOOT tab's **Join** button, and its `JOINOK` is shown.
- [x] `RSVOK` with `A` and a shorter `acceptedIds`: the rest are marked refused, and the reason is printed. RC sends reserves **in the order the raider picked them**, so "keeps the first N" keeps the raider's first picks.
- [x] `LL` pages arriving about 1 a second are merged by boss name (pages for a boss within 10 s of each other add up; a later send replaces the list).
- [x] `maxReserves` 1-5 is used as the limit.
- [x] A `DKP` timestamp equal to the snapshot load time is accepted.
- [x] `PING` is accepted only from the leader, an assistant or the master looter, in a group; `HERE~<checkId>~<inInstance>~<afk>` is whispered back within 2 s; a `checkId` is answered once.

Self-test: both addons on one character

`/arc selftest` lets the raid leader test Raid Companion as a raider on the **same character** that runs ARM. While it's on:

- RC accepts `ABSRAID` messages **from the player's own name** and treats the player's own ARM as the leader.
- In a group, RC uses the group channel as normal (WoW also delivers your own group addon messages to you).
- **Solo,** RC sends everything it would send to the group as an addon **WHISPER to the player's own name** (`Name-Realm`).

What ARM needs for this to work (please add):

1. Don't drop `ABSRAID` messages whose sender is the player, at least while ARM's own self-test or demo-free solo testing is on. RC's `HI`, `DKPQ`, `JOIN`, `BID`, `PASS`, `RSV`, `LLREQ` and `HERE` will arrive from the player's own name.
2. **Solo:** send group messages (`HI~1~L`, `DROP`, `AUC`, `EXT`, `CLOSE`, `RSVSET`, `RSVREQ`, `PING`) as an addon WHISPER to the player's own `Name-Realm`, since there is no group channel. Allow `PING` when solo in this mode (ARM 0.2.0 skips `PING` when solo).
3. Whisper answers (`DKP`, `BIDOK`, `JOINOK`, `RSVOK`, `WON`, `LL`) work unchanged: their target is the player.

ARM can make this one switch, for example `/arm selftest`, so normal solo play never echoes.

Part 2: Absolute Raid Management 0.2.0 conformance (written against Raid Companion 0.1.0; Raid Companion 0.2.1 confirms every item)

Protocol v1: how the leader side works

This is the raid leader's side of the protocol in **AbsoluteRaidCompanion-PROTOCOL** (v1), as built into **Absolute Raid Management (ARM) 0.2.0**. ARM follows that document message for message. This file confirms every message, the channel each one travels on, and the few places where ARM had to choose an exact behaviour. Raid Companion (RC) should match those choices. The checklist at the end lists what to confirm on the RC side.

1. Transport (matches the RC spec)

Item	ARM 0.2.0
Prefix	`ABSRAID`, registered at login with `C_ChatInfo.RegisterAddonMessagePrefix`
Separator	`~`. ARM turns any `~` inside a field into `-` before sending.
Size	Every message is 250 bytes or less and stands alone. Nothing is split into pieces except the loot list, which goes **one boss per page** (see §6). The longest message in testing was 181 bytes (`LL` for Onyxia).
Raid-wide news	Group addon channel: `INSTANCE_CHAT` in a finder group, else `RAID`, else `PARTY`
Personal or secret	Addon `WHISPER` to the one player. Bid amounts and prices are only ever sent this way.
Guild lookups	ARM joins the **hidden guild channel**, using RC's exact name and password code (Djb2 + Base36, `AbsRaid...` / `arc...`), about 15 s after the first `PLAYER_ENTERING_WORLD`. It removes the channel from every chat frame and filters `CHAT_MSG_CHANNEL*` for it. ARM **listens** for `DKPQ` on both `CHANNEL` and `GUILD`, and always **answers by WHISPER**.
Names	ARM sends `Name-Realm` everywhere a name appears (`CLOSE` winner, whisper targets). Same-realm names get the player's normalized realm added.
Sending	Through a queue that respects the game's per-prefix limit (a burst of 10, then about 1 a second). ARM checks every `SendAddonMessage` result and retries a refused send up to **5 more times over about 20 s**. Bid answers and auction news go to the front of the queue.
Demo mode	`/arm demo` builds every message exactly as described here but never sends any of them.

2. Who answers

- **The group leader running ARM** answers hellos, DKP questions, reserves and loot-list requests, and announces drops. When solo, ARM answers too, for testing.
- **Whoever runs the auction** handles `JOIN` / `BID` / `PASS` for it and sends `AUC`, `EXT`, `CLOSE` and `WON`. That is normally the raid leader, but a raid assistant can run an auction.
- **Guild DKP lookups** are answered by any ARM user who has "Answer DKP lookups from the guild" on (the default), whose current points book is not a read-only copy, and whose book has the asker in it. Each asker gets at most one answer every 10 s from each officer. RC keeps the newest timestamp.

RC: please confirm that leader-side messages from a **raid assistant** are accepted (your spec says leader, assistant or master looter, so this should already work).

3. Handshake

Dir	Message	ARM behaviour
C -> group	`HI~1~C~<rcVersion>`	ARM records the raider as a Raid Companion user, **whispers back** `HI~1~L~...`, and whispers `AUC~...` too if an auction is running (for late joiners).
L -> whisper / group	`HI~1~L~<armVersion>~<pool>~<maxReserves>~<locked>~<raidKey>`	Example: `HI~1~L~0.2.0~Main Raid~2~0~OnyxiasLair`. Sent **to the group** whenever the pool, the reserve raid, the limit or the lock changes. `maxReserves` is ARM's per-player limit (1 to 5); ARM never sends `0`.
L -> group	`RQHI~1`	Sent when ARM's player takes the group lead (and when it logs in while leading), and by `/arm companion` when nobody has said hello yet. At most once every 5 s.

ARM ignores any `HI` whose role is `L` (another leader's hello).

4. DKP

Dir	Message	ARM behaviour
C -> L whisper	`DKPQ~<pool>`	Answered with `DKP`. An empty or unknown pool means the raid's current pool. A raider who asks is also added to the Raid Companion list, even without a `HI`.
C -> guild channel / GUILD	`DKPQ~<pool>`	Answered by WHISPER under the rules in §2.
L -> C whisper	`DKP~<pool>~<balance>~<timestamp>`	`balance` is a whole number: the balance after every award and charge, **not** minus open bids. `timestamp` is the `time()` of the book's last change; with nothing recorded yet, it is the time tonight's Raid Bot snapshot was loaded.

Live updates: after any award, charge or undo, ARM whispers a fresh `DKP` to every Raid Companion raider (anyone who said `HI` or asked `DKPQ`) whose balance changed. Updates are batched, at most every 2 s. After `WON`, ARM sends that raider their `DKP` straight away.

5. Loot and bidding

- **lootId** is the drop's own short id from ARM's loot list (for example `3c1bce2`). It is unique for the night and is the same id in `DROP`, `AUC`, `JOIN`, `BID`, `PASS`, `EXT`, `CLOSE` and `WON`.
- **Bidding is sealed by default:** ARM is the only place the amounts exist.

Dir	Message	ARM behaviour
L -> group	`DROP~<lootId>~<itemId>~<boss>`	Sent as each drop is recorded (loot window or shift-click), again for every open drop when the leader presses **Announce drops**, and right before `AUC` if that drop hasn't been announced yet.
L -> group	`AUC~<lootId>~<itemId>~<minBid>~<seconds>~<O|R>`	`R` when the leader picks **Start bidding, reservers only** (Loot page, right-click a drop). `seconds` is the time left.
C -> L whisper	`JOIN~<lootId>`	**Before bidding:** `JOINOK~id~A~you're on the list for when bidding opens`. ARM adds the raider to the drop's **Want** column, which the leader sees. **During bidding:** `A~you're on the bidding table`. Refused (`R`) when the item isn't up, was already given out, the raider isn't in the raid, or the auction is reservers-only and they didn't reserve it.
C -> L whisper	`BID~<lootId>~<amount>`	**A new BID replaces the raider's earlier bid** (higher or lower). The checks are: the auction is open, amount >= `minBid`, amount <= balance (unless the leader allows negative DKP), and the reservers-only rule. A bid that arrives on any channel other than WHISPER is refused.
L -> C whisper	`BIDOK~<lootId>~<amount>~<A|R>~<reason>`	Echoes the amount it answers. Reasons: `bid taken`, `below the minimum bid`, `more DKP than you have`, `bidding is closed`, `only players who reserved it can bid`, `you're not in the raid`, `send bids by whisper`.
C -> L whisper	`PASS~<lootId>`	Takes that raider's bid back. No answer is sent.
L -> group	`EXT~<lootId>~<seconds>`	A bid in the last few seconds (the leader's "late bid adds" setting, default 8 s) pushes the end out; ARM sends the new time left.
L -> group	`CLOSE~<lootId>~<winner>~<W|D|C>`	`W` with `Name-Realm` for a won auction, and also for an item given out without bidding (a roll or **Award to...**). `D` for disenchant. `C` **with an empty winner for a cancelled auction or one that ended with no bids**, and for a drop removed from the list. Never a price.
L -> winner whisper	`WON~<lootId>~<price>`	Then `DKP` with the new balance. If the leader won their own auction, ARM prints the price locally instead.

Winning: the highest bid wins; on a tie, the bid placed first wins. A raider who changes their bid gets a new place in the order. In the raid announcement ARM names only the winner, unless the leader ticks "Say the winning bid".

Raiders on ARM rather than RC bid through ARM's own pop-up over ARM's own prefix (`AbsRaidMgmt`). They follow the same sealed rules and the same auction, so RC and ARM bidders compete fairly in one auction.

RC: please confirm

1. `CLOSE~id~~C` (empty winner) covers **no bids** as well as cancelled.
2. `CLOSE~id~Name-Realm~W` can arrive for a drop that **never had an** `AUC` (rolled or handed out).
3. `JOIN` is fine **before** an `AUC` (ARM accepts it and adds the raider to the Want list).

6. Reserves

Dir	Message	ARM behaviour
raidKey	—	ARM converts both ways: its raids (ONY, BARROW, HYJAL, MC...) map to `name:gsub("[^%w]", "")`, giving `OnyxiasLair`, `BarrowDeeps`, `HyjalSummit`, `MoltenCore`, `ZulGurub`, `RuinsofAhnQiraj`. ARM's own short keys are also accepted on the way in.
C -> L whisper	`RSV~<raidKey>~<id,id,...>`	Replaces the raider's whole list for that raid. **Over the limit:** ARM keeps the **first N** ids and answers `A` with reason `only N reserve(s) allowed`. **Locked:** `R`, with what ARM already holds and reason `reserves are locked`. **Unknown raid:** `R~~unknown raid`.

Dir	Message	ARM behaviour
L -> C whisper	`RSVOK~<raidKey>~<A|R>~<acceptedIds>~<reason>`	`acceptedIds` lists exactly what ARM now holds for that raider.
L -> group	`RSVSET~<raidKey>~<maxReserves>~<locked>`	Sent when the limit or the lock changes (along with a fresh `HI~1~L`).
L -> group	`RSVREQ~<raidKey>`	Sent when the leader presses **Ask raid to share** on the Reserves page.
C -> L whisper	`LLREQ~<raidKey>`	Answered with `LL` pages.
L -> C whisper	`LL~<raidKey>~<page>~<pages>~<boss>~<id,id,...>`	One page per boss. A boss too big for one message is split across pages under the **same boss name**. Pages go through the queue at about 1 a second after a burst of 10, which is slower than the 4 a second the spec suggests, so that refused-message retries never pile up. Boss names come from ARM's loot tables: some raids use `All bosses` and `Trash` as group names. Barrow Deeps and Hyjal Summit start empty and fill in as items drop.

7. Chat mode

ARM 0.2.0 answers `HI`, so RC never needs chat mode with it. ARM still accepts **whispered** chat bids (`bid 50` or a bare `50`) with sealed rules. **With sealed bids on, it refuses `bid 50` typed in raid chat** and whispers back asking for a private bid. If RC ever falls back to chat mode against an older ARM, its whispers keep working.

8. Where DKP comes from: Absolute Raid Bot (for context)

The guild's master DKP book lives in **Absolute Raid Bot** on Discord:

1. Before the raid, an admin runs `/dkpadmin snapshot`. The raid leader pastes the snapshot into ARM (`/arm import`), and ARM asks for it when a raid forms. That becomes tonight's pool, and RC raiders see those balances through `DKP`.
2. After the raid, `/arm export bot` sends tonight's attendance, loot and DKP changes back to the bot.

RC doesn't need anything new for this: it keeps using `DKPQ` / `DKP`.

9. RC checklist

- [ ] Accept leader-side messages from a **raid assistant** running the auction.
- [ ] Treat `CLOSE~id~~C` as "closed, no winner" (cancelled **or** no bids).
- [ ] Accept `CLOSE~...~W` for a drop with no `AUC` (rolled or awarded).
- [ ] `JOIN` before `AUC` is valid and answered.
- [ ] `RSVOK` with `A` and a **shorter** `acceptedIds` list (over the limit): mark the rest refused and show the reason.
- [ ] `LL` pages may arrive about 1 a second; merge pages by boss name.
- [ ] `maxReserves` from ARM is always 1–5, never 0.
- [ ] The `timestamp` in `DKP` can equal the snapshot load time when nothing has changed yet tonight.

10. Presence checks (new: RC needs to add this)

ARM 0.2.0 asks every Raid Companion raider whether they're present each time it pays DKP for being there: a boss kill, the on-time bonus, **Give to raid**, or a presence tick every N minutes while the raid is running. RC answers privately. ARM writes the answers into tonight's attendance (who runs the companion, and how many checks they answered), shows them on the ATTENDANCE page, and sends them to Absolute Raid Bot in the export. When the leader ticks **Presence DKP needs Raid Companion**, or the bot's `require_companion` is on, presence DKP goes only to raiders whose companion answered and who weren't AFK.

Dir	Message	Meaning
L -> group	`PING~<checkId>~<reason>`	"Are you here?" `checkId` is a short token. `reason` is a label, e.g. `Boss kill: Onyxia` or `Presence (15 min)`.
C -> L whisper	`HERE~<checkId>~<inInstance>~<afk>`	`inInstance`: `1` if the raider is inside the raid instance (`IsInInstance()`), else `0`. `afk`: `1` if `UnitIsAFK("player")`, else `0`. **Send it as a WHISPER to the PING's sender**, within 8 seconds. A random 0–2 s delay is fine. Answer even when AFK (with `afk=1`): ARM records them as present but not eligible.

Rules on the ARM side:

- Only answers that arrive by **WHISPER** count. An answer to an unknown or expired `checkId` is ignored.
- An answer from someone not in the group is ignored.
- A raider who answers a `PING` is added to the Raid Companion list, even if their `HI` was missed.
- `PING` is a leader-side message: RC should accept it only from the raid leader, an assistant or the master looter, like `AUC` and the others.
- No `PING` is sent in demo mode or when solo.

RC checklist (presence):

- [ ] Accept `PING` from the raid leader, an assistant or the master looter, and only in a group.
- [ ] Whisper `HERE~<checkId>~<inInstance>~<afk>` back to the sender within 8 s.
- [ ] Don't answer the same `checkId` twice.

11. Optional DKP and Raid Bot (rev 4: built in Absolute Raid Management 0.2.2)

ARM 0.2.2 sends exactly what Raid Companion 0.2.4 expects (Part 1, Optional DKP and Raid Bot): `flags` as `HI` field 9 (`D`, `B`, `U`, or `0` with an empty pool), `MODE~<flags>` to the group on every switch change, and `via` as `DKP` field 5. With DKP off it sends no `DKP`, `AUC` or `EXT`, refuses `BID`, and keeps `JOIN` (as Want), drops, `CLOSE`, reserves, loot lists and presence checks working. **Upload DKP** replaces the chosen pool's balances, sets the `U` flag, and whispers each Raid Companion raider their new `DKP` (`via U`) straight away.